



# 1 SD/HD 3G-SDI Over Single Fiber CWDM Uncompressed Rack-Mountable

Technical Datasheet - 1 channel SD/HD/3G-SDI optical transmitter and receiver kit in a 19 in. rackmount chassis.



Front panel - original product image

## Model Number

F-1SDI-3G-TxRx-RM | F-1SDI-3G-TX-RM | F-1SDI-3G-RX-RM

**Manufacturer:** Thor Fiber

**Primary Purpose:** Thor Fiber F-1SDI-3G-TxRx-RM transports one uncompressed SD/HD/3G-SDI serial digital video signal over fiber. The system supports signals up to 3.0 Gbps, passes embedded audio and ancillary data, and provides automatic signal handling for plug-and-play broadcast transport.

## Key Specifications

Spec Category	Extracted Value
Model Number	F-1SDI-3G-TxRx-RM   F-1SDI-3G-TX-RM   F-1SDI-3G-RX-RM
Primary Signal	1 channel SD/HD/3G-SDI over fiber
Input Support	Any serial digital signal up to 3.0 Gbps
Optical Platform	CWDM; DFB laser module
Wavelengths	1310nm CWDM band: 1271, 1291, 1311, 1331, 1351, 1371, 1411, 1431nm; 1550nm CWDM band: 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611nm
Fiber Cable	Single-mode or multi-mode fiber optic cable
Fiber Connector	ST/PC standard
Optical Data Rate	Up to 4.25Gbps, model specific
Optical Budget	25dB standard; 35dB long range
Electrical Connector / Impedance	BNC, 75 ohm
Input Level	1.00V peak-to-peak
Rack / Power	1RU 19 in. rackmount; 100-240 VAC auto-switching PSU

## Core Features

- **Uncompressed SDI Fiber Transport:** Sends one SD/HD/3G-SDI signal over optical fiber without compression.
- **Automatic Signal Handling:** Automatically adjusts to input signal type, bit rate, or protocol without configuration.
- **Reclocked Outputs:** Receiver outputs are automatically reclocked to reduce jitter and support longer cable runs.
- **Embedded Audio Support:** Passes SDI embedded audio and ancillary data transparently.
- **CWDM Compatible:** Uses standardized CWDM channels for compatibility with similar commercial systems.
- **Rackmount Design:** 1RU 19 in. rackmount transmitter/receiver kit for clean broadcast rack installation.
- **Status Indicators:** LED indicators help monitor input signal detect and optical link status.
- **Expandable Platform:** Custom configurations and DWDM versions available by request for higher density systems.

## Product Images

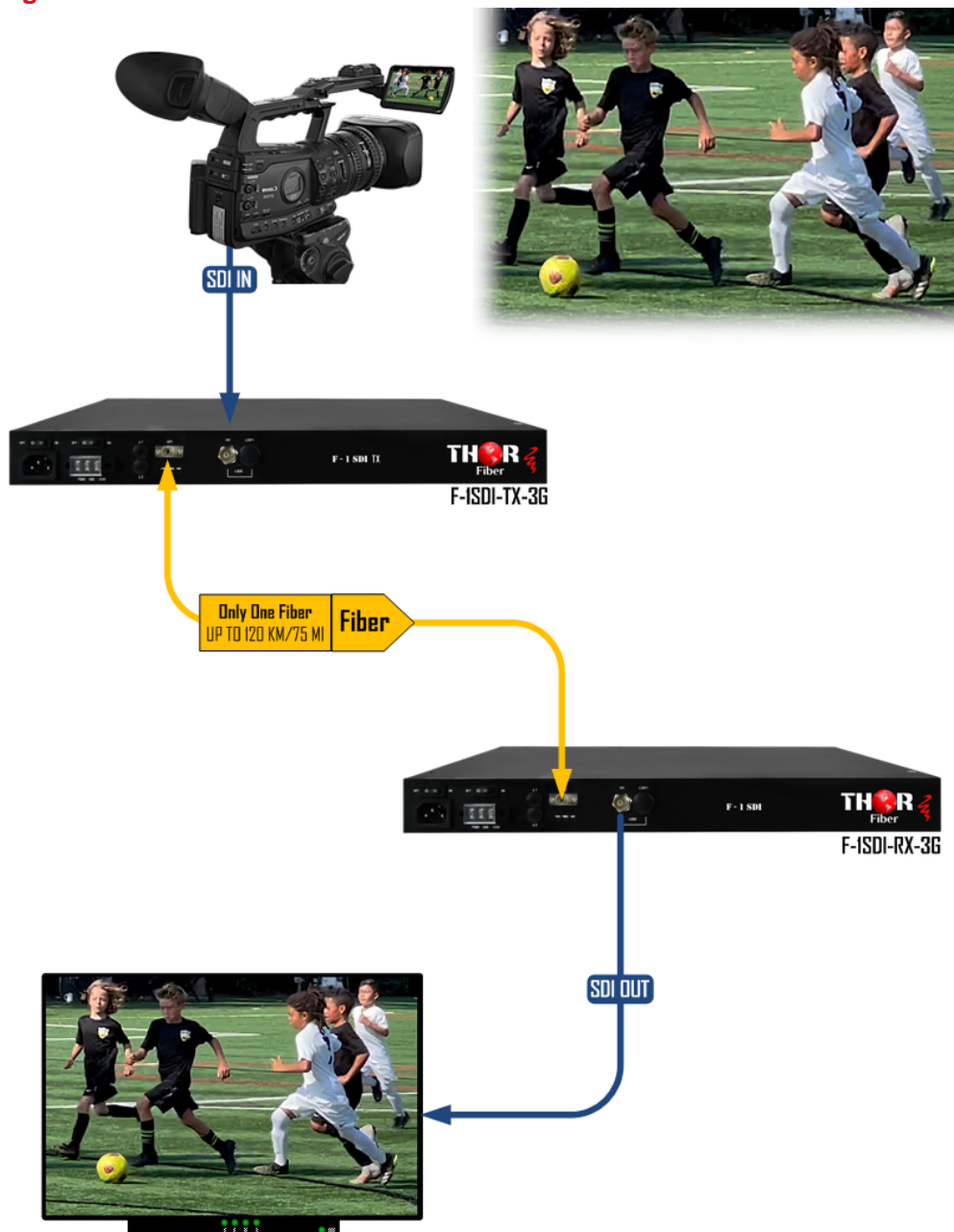


Rear panel / connection view - original product image

## Target Applications

- Live broadcast video transport
- Government and research video systems
- DVB-ASI or multi-rate digital signal transport
- Electronic news gathering
- Control room to remote site SDI extension
- Rack-to-rack fiber video links
- Stadium and venue SDI transport
- Production and post-production workflows

## Application Drawings



## Model Selection

Model	Description	Notes
F-1SDI-TX/RX-RM	Base SD/HD-SDI transmitter/receiver rackmount kit	1310nm; SD/HD-SDI support
F-1SDI-3G-TX/RX-RM	3G-SDI transmitter/receiver rackmount kit	Supports SD/HD-SDI and 3G-SDI
F-1SDI-TX/RX-RM-XX-YY	Distance-customized version	40, 60, 80, 100, or 120km options
F-1MSDI-TX/RX-XX-YY-ZZ-3G	Custom 3G-SDI configuration	Options for connector, distance, and fiber type

## Additional Product Information

Item	Extracted Value
Unit Size	19 x 10.75 x 2 in / 483 x 274 x 51 mm
Weight	15.1 lb
Box Size	21.5 x 13.25 x 7.5 in / 547 x 337 x 191 mm
Operating Temperature	-10C to +55C
Storage Temperature	-30C to +70C
Humidity	0 to 95%, non-condensing
Power Consumption	10-30W depending on configuration